Appl. No. 10/071,748 Amdt. dated March 19, 2004 Reply to Office Action of January 23, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

3.

Listing of Claims:

1. (Currently Amended) A process for producing a reaction bonded silicon carbide body, the process comprising:

combining [[a]] <u>about 0 wt% to about 35 wt% of a carbon source, about 40 wt% to about 90 wt%</u> silicon carbide, <u>about 0.01 wt% to about 15 wt% starch</u>, <u>an organic gelation</u> <u>agent</u> and [[a]] <u>about 10 wt% to about 30 wt%</u> liquid to form a ceramic slurry;

compacting the ceramic slurry into a green body; and exposing the green body to liquid silicon metal to produce a reaction bonded silicon carbide body.

- 2. (Original) A process as in claim 1, wherein the carbon source is selected from the group consisting of carbon black and colloidal graphite, and the silicon carbide comprises alpha silicon carbide grit.
- 3. (Currently Amended) A process as in claim 1, wherein the ceramic slurry includes about 0 wt% to about 20 wt% carbon black, and about 0 wt% to about 15 wt% colloidal graphite, about 40 wt% to about 90 wt% alpha silicon carbide grit, about 0.01 wt% to about 15 wt% organic gelation agent and about 10 wt% to about 30 wt% liquid.
- 4. (Currently Amended) A process as in claim 1, wherein the organic gelation agent the starch is selected from a group consisting of corn starch, potato starch, tapioca starch, and wheat starch, methyl-cellulose, substituted derivatives of methyl-cellulose, carboxymethyl-cellulose gum, guar gum, sodium alginate, gum arabic, lignosulfonates, polyacrylates, polyvinyl-butyrals and acrylics.
- 5. (Currently Amended) A process as in claim 1, wherein the ceramic slurry includes about 0.01 wt% to about 5 wt% potato starch as a gelation agent the starch.

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- 6. (Original) A process as in claim 1, further comprising heating the green body to a temperature of about 1400°C to about 1650°C during siliconization.
- 7. (Original) A process as in claim 1, wherein siliconization comprises exposing the green body to about 20 wt% to 150 wt% (based on green body weight) liquid silicon metal.
- 8. (Original) A process as in claim 1, wherein compacting the ceramic slurry comprises forcing the ceramic slurry into a porous mold with a pore size of about 2 microns to about 20 microns and applying pressure of about 70 psig to about 600 psig for about 10 seconds to about 240 seconds.
- 9. (Original) A process as in claim 1, further comprising agitating the ceramic slurry continuously at low shear for about 4 hours to about 15 hours under vacuum conditions.
- 10. (Original) A process as in claim 1, wherein combining further comprises mixing the ceramic slurry for about 10 minutes to about 60 minutes using a high shear, high intensity mixer.
- 11. (Original) A process as in claim 1, further comprising drying the green body in a conveyor drying oven at about 30 °C to about 200 °C for about 5 minutes to about 12 minutes.
- 12. (Original) A process as in claim 1, wherein the silicon carbide body comprises an armor torso.
 - 13-24. (Canceled)
 - 25. (New) A process as in claim 1, wherein the liquid is water.
- 26. (New) A process for producing a reaction bonded silicon carbide body, the process comprising:

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forming a green body from a ceramic slurry comprising silicon carbide, about 0.01 wt% to about 15 wt% starch, and about 10 wt% to about 30 wt% water; and exposing the green body to liquid silicon metal to produce a reaction bonded silicon carbide body.

- 27. (New) A process as in claim 26, wherein the green body is formed by compacting the ceramic slurry.
- 28. (New) A process according to claim 27, wherein the compacting is accomplished through pressure cast molding.
- 29. (New) A process according to claim 26, wherein the ceramic slurry comprises a carbon source.
- 30. (New) A process according to claim 26, wherein the ceramic slurry comprises about 0 wt% to about 20 wt% carbon black, and about 0 wt% to about 15 wt% colloidal graphite.
- 31. (New) A process according to claim 26, wherein the ceramic slurry comprises about 40 wt% to about 90 wt% alpha silicon carbide grit as the silicon carbide.
- 32. (New) A process according to claim 26, wherein the ceramic slurry comprises about 0.01 wt% to about 5 wt% potato starch as the starch.